

STATE OF HAWAII
PUBLIC UTILITIES COMMISSION
DEPARTMENT OF BUDGET AND FINANCE

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October 28, 2004

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Re: Docket No. 03-0371, In the Matter of Public Utilities Commission Instituting a Proceeding to Investigate Distributed Generation in Hawaii.

Dear Sirs:

To facilitate our review in the above-mentioned docket, we request that you respond to our information requests. Given the procedural schedule in this case, your responses are requested by Monday, November 22, 2004.

Department Of Commerce And Consumer Affairs

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If you have any questions or concerns relating to this request, please contact Kevin Katsura at (808) 586-2019. Thank you for your assistance in this matter.

Very truly yours,

Kevin M. Katsura Commission Counsel

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Enclosure

Docket No. 03-0371, In the Matter of Public Utilities Commission Instituting a Proceeding to Investigate Distributed Generation in Hawaii

Public Utilities Commission ("Commission") Information Requests

Please respond to the following information requests relating to the above-mentioned docket. To the extent that this information has already been included in a response to an information request or testimony, please also identify where this information may be found. If unable to respond, please state reason(s) next to each information request.

Statutory Authorizations

- PUC-IR-1 Do Hawaii electric utilities have authority under existing statutes and franchises to own distributed generation either directly or through an affiliate? If yes, please identify the specific statutes and franchises which authorize such activity. If no, please describe whether existing laws should be altered to permit utility ownership (either directly or through an affiliate) and if so, what changes are needed?
- PUC-IR-2 Are there any changes required to existing statutes, rules, or regulations to facilitate non-utility ownership of distributed generation ("DG") facilities?
- PUC-IR-3 What is the impact of Hawaii's net energy metering law, codified at Hawaii Revised Statutes ("HRS") § 269-101-111, (and recently amended this past legislative session to allow eligible systems of up to 50 kilowatts ("kW") to sell excess energy to the utility) on customer decisions to invest in DG? Should the existing 50 kW size limitation be increased to facilitate DG? Should the existing net energy metering law be expanded to include technologies other than those specified in the statute? Please identify any other changes that should be made to net metering laws, and why?

Definition of Distributed Generation

- PUC-IR-4 Should the Commission define distributed generation and if so, how should it be defined? Should the definition be flexible or specific as to size and technology? Should the definition identify "eligible" technologies and if so, how would such a list be derived? Or should the definition be sufficiently flexible to apply to a range of DG technologies, both those currently feasible as well as those not yet developed?
- PUC-IR-5 Should the definition of distributed generation include DER, "distributed energy resources" and other demand side technologies or systems?

PUC-IR-6 Should the Commission draw a distinction between "small scale" DG and other DG resources and if so, why? How should "small scale" DG be defined? What benefits can small scale DG offer (e.g., firm power, increased reliability, reduce transmission constraints) and what impacts does it have on the system?

Additional Information on "Viable and Feasible DG" for Hawaii

- PUC-IR-7 Please comment on HECO's listed criteria (see e.g. Seki Testimony at 20) for determining whether a DG technology is "viable and feasible" for Hawaii. Should other factors be considered as well?
- PUC-IR-8 Have the "multiple benefits" of DG cited in Life of the Land's testimony (Wooley at 2) ever been quantified for Hawaii as they have in the other states mentioned in the testimony and if so, where can this information be found?
- PUC-IR-9 Please identify any additional information provided in response to any party's Information Requests or filed in other dockets that provides further documentation or evidence of:
 - a. whether there are transmission, distribution generation constraints which could be served by DG;
 - the extent to which load growth is driving the need for distribution system enhancements;
 - c. where DG should be located to be most effective (and documentation for this conclusion); and
 - d. the availability or feasibility of alternative technologies.

To the extent that your testimony or prior responses do not already provide sufficient detail on these issues, please supplement your testimony with information on the above points.

- PUC-IR-10 Please identify with specificity the type and size of DG that can be currently deployed in Hawaii to maximize the benefits and minimize costs.
- PUC-IR-11 Identify with specificity existing environmental requirements which would impact the installation of DG and how this would occur? Are there any other regulatory requirements <u>e.g.</u>, Building Codes or zoning laws that would impact installation of DG and if so, identify these with specificity.

Impacts of Distributed Generation

Identify the impacts of DG on the distribution system with reference to the following specific questions.

- PUC-IR-12 What are the beneficial impacts of DG on the transmission and distribution ("T&D") system and more importantly, how may they be quantified and assessed for value?
- PUC-IR-13 What are the limits to the level of DG that the grid can absorb without adverse impacts? Please identify studies or other documentation in support of your response.
- PUC-IR-14 What are the limits of bi-directional power?
- PUC-IR-15 Should the design of new distribution feeders consider DG?
- PUC-IR-16 Can the concept of micro-grids be made practical? Can they be effectively utilized in Hawaii?
- PUC-IR-17 Should utilities be offered incentives to facilitate DG?
- PUC-IR-18 How can utility distribution practices be modified to enable DG to provide distribution deferral and be compensated for it?

Ownership

PUC-IR-19 If utilities are permitted to own distributed generation through affiliates, are any changes required to existing statutes, rules and regulations governing affiliates to guard against cross subsidization, to protect ratepayers and ensure competition between affiliates and non-affiliates on equal footing? Please identify potentially applicable statutes, rules and regulations and specify necessary changes.

Interconnection

- PUC-IR-20 What costs are associated with DG interconnection to the distribution grid?
 - a. If a utility overhead line is fully depreciated and upgrades or replacements are needed for distribution interconnection, does the DG customer pay for the upgrade replacement cost?

- b. Should a DG customer be required to pay for distribution system upgrades that would have otherwise occurred in the absence of a DG interconnection?
- c. Should subsequent DG customers on a particular feeder line be responsible for costs applied to the first DG customer on the line? If so, what type of crediting mechanism should be put in place for the first customer?
- d. What mechanism should be used for recovery of these costs (i.e., fixed vs. demand charges, marginal cost vs. average cost, etc...)
- PUC-IR-21 Should HECO's, HELCO's and MECO's Rule 14.H on interconnection specific to distributed generation be modified to further facilitate or encourage distributed generation? If so, please identify with specificity those aspects of Rule 14.H that must be changed? Should the same interconnection rules for distributed generation apply to both the HECO companies and KIUC?
- PUC-IR-22 What has been the experience of the parties to date with interconnecting distributed generation facilities under either HECO's, HELCO's or MECO's Rule 14.H?

Rate Structure and Cost Recovery

- PUC-IR-23 Is the current allocation of distribution charges between customer, demand and usage charges adequate or should it be modified to accommodate DG? What is the appropriate allocation between utilities and ratepayers of revenues foregone as a result of the deployment of DG?
- PUC-IR-24 Should credits be offered to customers or third parties that can defer the need for localized distribution expenditures. If yes, how should these credits be awarded, calculated and administered? And how should the cost of any credits or incentives be allocated and recovered by the distribution company?
- PUC-IR-25 How can services be identified for unbundling and how should rates be calculated? Please comment on the viability of the Consumer Advocate's proposal for unbundling (Consumer Advocate Testimony, Witness Herz at 60-63). Will unbundling rates ensure that the utility recovers its cost of service from the customer benefiting from DG and does not shift costs to other ratepayers? (See, e.g., Witness Herz, testimony at 23, 60)

- PUC-IR-26 Should the commission consider decoupling revenues from sales so that the utility is indifferent to installation of DG that has the effect of reducing sales?
- PUC-IR-27 Should the electric utilities institute termination charges (exit fees) for customers who install distributed generation and if so how should they be designed?
- PUC-IR-28 Should standby rates similar to those implemented by HELCO (see Decision and Order No. 18575, filed on June 1, 2001, in Docket 99-0207) be adopted by HECO or MECO? Is the flat fee standby charge used by KIUC an appropriate approach for other utilities? Or should the Commission repeal and prohibit standby charges?
- PUC-IR-29 Please provide comments on the issues below related to standby service proposals.
 - a. To the extent that standby rates are implemented (for those utilities that do not have them) or modified, should demand subscription or non-firm standby rates be included? Please comment on the viability and desirability of a non-firm or "best efforts" standby service (see e.g. County of Maui testimony, Witness Lazar at 78)
 - b. Should regulated utilities be required to charge themselves or their affiliates the same standby charges with respect to the regulated utility or affiliate owned, operated and maintained distributed generation facilities?
 - c. Should standby rates be the same for all Hawaii electric utilities including KIUC?
 - d. Should supplemental service be distinguished from stand-by service and if so, should supplemental service continue to be charged at the otherwise applicable tariff?
- PUC-IR-30 Please describe the electric utilities' current policies regarding "hook up fees" or impact fees. Should existing policies regarding hook up fees be revised so as to remove barriers to development of distributed generation? Please comment on the County of Maui's proposal regarding impact fees. (see discussion County of Maui Testimony; e.g., Kobayashi at 12; Lazar at 18-19, 33)
- PUC-IR-31 Should a systems benefit charge be adopted to recover costs of distributed generation? If yes, how should such a charge be established?

PUC-IR-32 Will an inverted block rate design (see e.g. County of Maui, Witness Kobayashi at 12, Lazar at 86) result in better allocation of costs of new DG facilities? What are other benefits of inverted block rate design (if any) with respect to promoting DG?

PUC-IR-33 How should costs associated with distributed generation be recovered?

- a. How should the costs of fuel purchased for utility owned, customer site DG facilities be handled? Should it be included in the energy rate adjustment clause applicable to all customers or recovered in some other manner?
- b. Should regulated utilities be permitted to include in their regulated rates the cost of distributed generation equipment and its maintenance?

Integrated Resource Plan Process

PUC-IR-34 How should the existing IRP process and the deployment of DG be synchronized to maximize the benefits of DG?